



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEX SIR 18.0058

Issue No: 0

Certificate history:

Issue No. 0 (2018-11-06)

Status: **Current**

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Date of Issue: **2018-11-06**

Applicant: **RAE Systems, Inc. A Honeywell Company**  
1349 Moffett Park Drive  
Sunnyvale  
California 94089  
**United States of America**

Equipment: **Handheld Toxic Gas Monitor**

*Optional accessory:*

Type of Protection: **Intrinsic Safety**

Marking:

Ex ia IIC T4 Ga  
Ex ia I Ma  
Tamb = -40°C to +60°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

C Ellaby

*Position:*

Deputy Certification Manager

*Signature:  
(for printed version)*

*Date:*

2018-11-06

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**SIRA Certification Service**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden, Deeside, CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





# IECEX Certificate of Conformity

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Manufacturer: **RAE Systems, Inc. A Honeywell Company**  
1349 Moffett Park Drive  
Sunnyvale  
California 94089  
**United States of America**

Additional Manufacturing location(s):

**RAE Systems (Shanghai) Inc.**  
No. 990 E. Huiwang Rd  
JiaDing District, Shanghai 201815  
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

**STANDARDS:**

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0  
**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

**TEST & ASSESSMENT REPORTS:**

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[GB/SIR/ExTR18.0201/00](#)

Quality Assessment Report:

[NO/PRE/QAR16.0005/01](#) [NO/PRE/QAR16.0006/01](#)



# IECEx Certificate of Conformity

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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The subject instrument is a Handheld Toxic Gas Monitor for continuously display of gas concentrations. The physical dimensions are 70mm\*67mm\*25 (30mm with 4R sensor) mm. Its weight is around 100g. It is handheld and battery powered, front and back area housed in a transparent plastic material (PC), partially covered with stainless steel and soft thermoplastic rubber material (TPE). The front, which is partially covered with stainless steel, has LCD display and pushbuttons for navigation and programming. The back of the enclosure is equipped with a metallic belt clip.

Refer to Annexe for additional EQUIPMENT information.

**SPECIFIC CONDITIONS OF USE: NO**

### Annex:

[IECEx SIR 18.0058 Annexe Iss 0.pdf](#)

**Annexe to:** IECEx SIR 18.0058 Issue 0  
**Applicant:** RAE Systems, Inc. A Honeywell Company  
**Apparatus:** Handheld Toxic Gas Monitor



### EQUIPMENT (continued)

The full equipment description is shown as follows:

The subject instrument is a Handheld Toxic Gas Monitor for continuously display of gas concentrations. The physical dimensions are 70mm\*67mm\*25 (30mm with 4R sensor) mm. Its weight is around 100g. It is handheld and battery powered, front and back area housed in a transparent plastic material (PC), partially covered with stainless steel and soft thermoplastic rubber material (TPE). The front, which is partially covered with stainless steel, has LCD display and pushbuttons for navigation and programming. The back of the enclosure is equipped with a metallic belt clip.

It is supplied by a Li-SOCl<sub>2</sub> battery. The battery is provided with infallible safety circuits including infallible resistors.

This instrument normally equips with electrochemical Clydesdale Whittle sensor / 4R sensor, an optional wireless modem, audible and visual alarm indicators. The visual alarm comprises a Red LED bar visual from the top and bottom. The push button of facilitates the access to measured levels or alarms, and the mode button makes it possible to change pre-set limits and setting, additionally, the imbalanced motor produces a vibration alert when in alarm mode.

The model number refers to following table. All models have same schematic design. However, the external dimension of Clydesdale 4R sensor is bigger than Clydesdale whittle sensor, so the PCB layout is a little bit different between Clydesdale-whittle and Clydesdale-4R. The rest of model number have no effects on the circuit design of BWSa-bbc-d.

|     |                 |       |                           |
|-----|-----------------|-------|---------------------------|
| a:  | Product version | empty | Standard version          |
|     |                 | 1     | Wireless version          |
|     |                 | 2     | Low cost version          |
| bb: | Gas type        | b     | Detect gas                |
|     |                 | bb    | Detect extended gas       |
| c:  | Sensor type     | L     | Clydesdale Whittle sensor |
|     |                 | empty | Clydesdale 4R sensor      |
| d:  | Color           | Y     | Yellow                    |
|     |                 | B     | Black                     |